

SEQUENCE LISTING

<110> LIVSHITS, VITALY ARKADIEVICH  
ZAKATAEVA, NATALYA PAVLOVNA  
ALCOSHIN, VLADIMIR VENYAMIOVICH  
BELAREOVA, ALL VALENTINOVNA  
TOKHMAKOVA, IRINA LVOVNA

<120> DNA CODING FOR PROTEIN WHICH CONFERS ON BACTERIUM  
ESCHERICHIA COLI RESISTANCE TO L0-HOMOSERINE AND METHOD  
FOR PRODUCING L-AMINO ACIDS

<130> 0010-1039-0

<140> 09/396,357

<141> 1999-09-15

<150> RU98118425

<151> 1998-10-13

<160> 2

<170> PatentIn Ver. 2.1

<210> 1

<211> 1200

<212> DNA

<213> Escherichia coli

<220>

<221> CDS

<222> (557)..(1171)

<400> 1

agaaaataatg tggagatcgc accgcccattc gaatgtgccca gtatatacg tttacgcccac 60

ggaccgggct gAACCTCCTG ctgccagaat gccgccagat catcaacata atcattaaag 120

cgattaacat gcccggatg cggatcggt aacaggcgac cggaacgtcc ctgccccgca 180

tggtcgatga ttaagacatc aaaccccaa tggaacaggt cataggccag ttccgcata 240

tttacgttagc tctcaatacg ccccgccag atgactacca cccggcatg gtgctgtgcg 300

cgaaaaacgga caaagcgcac cggaatgtca tccacaccag taaactctgc ttcatcacgc 360

tgacgccaga aatcagtca gggccccatg gtaaaagcag caaacgcgtt ttctcttgtt 420

tcccaagtctt tttgtgtctg aaacatcgaa taatctgcct cttaaaccac gtaaaaatcgt 480  
 ttttttagc gtgcctgaca caacgctgct acagtagcgt attgtggcac aaaaatagac 540  
 acaccgggag ttcatc atg acc tta gaa tgg tgg ttt gcc tac ctg ctg aca 592  
     Met Thr Leu Glu Trp Trp Phe Ala Tyr Leu Leu Thr  
     1                 5                             10  
  
 tcg atc att tta acg ctg tcg cca ggc tct ggt gca atc aac act atg 640  
 Ser Ile Ile Leu Thr Leu Ser Pro Gly Ser Gly Ala Ile Asn Thr Met  
     15                 20                             25  
  
 acc acc tcg ctc aac cac ggt tat ccg gcc ggt ggc gtc tat tgc tgg 688  
 Thr Thr Ser Leu Asn His Gly Tyr Pro Ala Gly Val Tyr Cys Trp  
     30                 35                             40  
  
 gct tca gac cgg act ggc gat tca tat tgt gct ggt tgg cgt ggg gtt 736  
 Ala Ser Asp Arg Thr Gly Asp Ser Tyr Cys Ala Gly Trp Arg Gly Val  
     45                 50                             60  
  
 ggg ~~acg~~ cta ttt tcc cgc tca gtg att gcg ttt gaa gtg ttg aag tgg 784  
 Gly ~~Thr~~ Leu Phe Ser Arg Ser Val Ile Ala Phe Glu Val Leu Lys Trp  
     65                 70                             75  
  
 gca ~~ggc~~ ggc gct tac ttg att tgg ctg gga atc cag cag tgg cgc gcc 832  
 Ala ~~Gly~~ Ala Ala Tyr Leu Ile Trp Leu Gly Ile Gln Gln Trp Arg Ala  
     80                 85                             90  
  
 gct ~~tgt~~ gca att gac ctt aaa tcg ctg gcc tct actcaa tcg cgt cga 880  
 Ala ~~Gly~~ Ala Ile Asp Leu Lys Ser Leu Ala Ser Thr Gln Ser Arg Arg  
     95                 100                             105  
  
 cat ~~tgt~~ ttc cag cgc gca gtt ttt gtg aat ctc acc aat ccc aaa agt 928  
 His Leu Phe Gln Arg Ala Val Phe Val Asn Leu Thr Asn Pro Lys Ser  
     110                 115                             120  
  
 att gtg ttt ctg gcg gcg cta ttt ccg caa ttc atc atg ccg caa cag 976  
 Ile Val Phe Leu Ala Ala Leu Phe Pro Gln Phe Ile Met Pro Gln Gln  
     125                 130                             140  
  
 ccg caa ctg atg cag tat atc gtg ctc ggc gtc acc act att gtg gtc 1024  
 Pro Gln Leu Met Gln Tyr Ile Val Leu Gly Val Thr Thr Ile Val Val  
     145                 150                             155  
  
 gat att att gtg atg atc ggt tac gcc acc ctt gct caa cgg att gct 1072  
 Asp Ile Ile Val Met Ile Gly Tyr Ala Thr Leu Ala Gln Arg Ile Ala  
     160                 165                             170  
  
 cta tgg att aaa gga cca aag cag atg aag gcg ctg aat aag att ttc 1120

Leu Trp Ile Lys Gly Pro Lys Gln Met Lys Ala Leu Asn Lys Ile Phe  
 175 180 185  
 ggc tcg ttg ttt atg ctg gtg gga gcg ctg tta gca tcg gcg agg cat 1168  
 Gly Ser Leu Phe Met Leu Val Gly Ala Leu Leu Ala Ser Ala Arg His  
 190 195 200  
 gcg tgaaaaataa tgcggatgc ggctaaac 1200  
 Ala  
 205

<210> 2  
 <211> 205  
 <212> PRT  
 <213> Escherichia coli

<400> 2  
 Met Thr Leu Glu Trp Trp Phe Ala Tyr Leu Leu Thr Ser Ile Ile Leu  
 10 5 10 15  
 Thr Leu Ser Pro Gly Ser Gly Ala Ile Asn Thr Met Thr Thr Ser Leu  
 20 25 30  
 Asn His Gly Tyr Pro Ala Gly Gly Val Tyr Cys Trp Ala Ser Asp Arg  
 35 40 45  
 Thr Gly Asp Ser Tyr Cys Ala Gly Trp Arg Gly Val Gly Thr Leu Phe  
 50 55 60  
 Ser Arg Ser Val Ile Ala Phe Glu Val Leu Lys Trp Ala Gly Ala Ala  
 65 70 75 80  
 Tyr Leu Ile Trp Leu Gly Ile Gln Gln Trp Arg Ala Ala Gly Ala Ile  
 85 90 95  
 Asp Leu Lys Ser Leu Ala Ser Thr Gln Ser Arg Arg His Leu Phe Gln  
 100 105 110  
 Arg Ala Val Phe Val Asn Leu Thr Asn Pro Lys Ser Ile Val Phe Leu  
 115 120 125  
 Ala Ala Leu Phe Pro Gln Phe Ile Met Pro Gln Gln Pro Gln Leu Met  
 130 135 140  
 Gln Tyr Ile Val Leu Gly Val Thr Thr Ile Val Val Asp Ile Ile Val  
 145 150 155 160  
 Met Ile Gly Tyr Ala Thr Leu Ala Gln Arg Ile Ala Leu Trp Ile Lys

165

170

175

Gly Pro Lys Gln Met Lys Ala Leu Asn Lys Ile Phe Gly Ser Leu Phe  
180 185 190

Met Leu Val Gly Ala Leu Leu Ala Ser Ala Arg His Ala  
195 200 205

DRAFTED - 6/10/90